CH2M HILL Plateau Remediation Company: 
Recovery Act (ARRA) Lessons Learned and Continuing the Momentum

Presented by: John Lehew, President and Chief Executive Officer

Waste Management 2011
Overall Project Status

- Accomplishing work safely, on schedule, and below cost
  - 1 Million Safe Hours in both Plutonium Finishing Plant and Soil and Groundwater Projects...800,000K safe hours for D&D!
- All regulatory milestones are on or ahead of schedule
- Executing efficiently in all major scope areas
- Exceeding small business goals
- Achieving all Recovery Act goals
- ISMS/EMS Verified and EVMS certified
## ARRA Implementation Ramp Up

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
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<tbody>
<tr>
<td>The Recovery Act signed into Law by the President of the United States</td>
<td>February 2009</td>
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<td>Identified ARRA Project Manager and Implementation Team</td>
<td>February 2009</td>
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<td>Leased two in-town offices and mobilized ~200 modular units for new hires</td>
<td>March 2009</td>
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<tr>
<td>Received Contract Modification and Notice to Proceed for Recovery Act Work</td>
<td>April 2009</td>
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<td>Held job fair – More than 3,000 people attended</td>
<td>April 2009</td>
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<td>Began block training for more than 400 D&amp;D new hires</td>
<td>April 2009</td>
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<td>Initiated ARRA work scope in TRU retrieval, low level waste and mixed low level waste treatment, D&amp;D, and Request for Proposals (RFPs) for groundwater expansion projects and for waste site remediation</td>
<td>April 2009</td>
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<td>Developed first CHPRC ARRA Weekly Report and Video supporting transparency requirements (Contract Modification)</td>
<td>April 2009</td>
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<tr>
<td>Completed definitization of ~$1.3 billion Recovery Act Scope (2 phases)</td>
<td>July 2010</td>
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Since April 2009

- Participated in 18 job fairs
- Received more than 22,100 applications/resumes
- Awarded $686M in Subcontracts
  - 55% of subcontracts awarded to Small Businesses
- Touched 6,990 lives
- Providing workers experience and training for future opportunities
- Signed Memorandum of Agreement with Hanford Atomic Metal Trades Council (HAMTC) to hire ARRA bargaining unit employees direct (without bumping)
Ramping Up

- Logistics for more than 2,100 new hires:
  - Medical exams, whole body counts
  - Background checks and badging
  - Training
  - Mobilized ~200 mobile facilities
  - Computers, telephones and supplies
  - Vehicles, heavy equipment, and waste containers
  - Equipment, tools
  - Personal Protective Equipment
  - Increased sampling volume
Synchronization of Programs
Safety and Training

- Developed a comprehensive safety and field work training program for new workforce along with project-specific training
- Conducted Readiness Self Assessments
- Implemented ARRA work using existing ISMS/EMS Program
- Integrated safety culture of new and incumbent workers
- Incorporated Lessons Learned from operational events across the complex
- Reinforced management expectations for compliance, reporting and performance of work
- Reinforced workers ability to Stop Work
ARRA Integrated Training Program

Lesson Learned

- Scale of the increased training required site-wide planning, preparation, and implementation
  - Resource limitations
  - Competing contractor demands
  - Consolidated/expanded facility usage
  - Prioritization of effort

- Organized a Training Support Team to provide administrative direction and control to new hires

CH2M HILL Plateau Remediation Company Provided Deactivation and Decommissioning Workers New Hire Orientation on April 27, 2009. Workers Met Members of the Leadership Team and Received a Briefing on CH2M HILL’s Safety Culture.
Continuing Training

Lesson Learned

• Integrated staffing plan that identifies long-term staffing needs and sequencing of training

• Embrace new hires by teaming with incumbents
  – Communicate long-term opportunities
  – Communicate common information

• Training set up as a “block session” by assignment
  – Includes a safety culture orientation “Do Work Safely”
  – D&D worker fundamentals
  – Supported a programmatic review/audit of training
  – Incorporated Lessons Learned from operational events
Implementation of ARRA

Lessons Learned

- Staffing pressures for critical positions such as shift managers, trainers, subject matter experts, etc.
- Flow down of requirements into subcontracts
- Increased onsite traffic (vehicular safety)
- Coordination with other site contractor(s)
- Increased supervision
- Integrated work teams
- Increased oversight and involvement from subcontractors
- Focus on One Team. One Culture.
Implementation of ARRA

**Lessons Learned**

- Managing ARRA projects is ‘routine project management’
  - Priority and Resource Management
  - Integration with other contractors
- Focus has clearly been on ARRA Key Performance Parameters
  - In addition to baseline management
- Partnership with customer and regulators to facilitate getting work in the field
ARRA Reporting
Maintaining Transparency

• ARRA Reporting Overview
  – Weekly, monthly, and quarterly reporting
  – Understanding reporting requirements and metrics
  – Establishing information flow

• Reporting Mechanisms and Tools
  – COBRA Cost - Tracking and Reporting
  – Primavera (P6) - Scheduling and Status
  – Business Management Systems
    Procurement, Timekeeping, Financial, etc.
  – Coding ARRA Scope in the business management and EVMS tools helps to ensure consistent tracking of costs and metrics
Enhanced Transparency

- Safety Metrics
- Assessments
- Job Tracking
- Financial Reporting
- Progress Reporting

Workers Place Concrete Footings for the 200 West Pump and Treat Rad. Building
Enhanced Transparency
ARRA Progress Draws Public Attention

• Increased local and national political attention
• Increased local and national media attention
• Increased site tours (DOE-HQ, DNFSB, EM, Congress, community leaders, interest groups)
• Increased communications
Recovery Act Dollars at Work
Making a Difference

Creating Jobs
• $686M Subcontracts awarded
• 55% Subcontracts awarded to small businesses
• 6,990 Lives touched
• Providing workers experience and training for future growth
  • 1,373 HAMTC workers
  • More than 550 Building Trades workers

Reducing Footprint / Lifecycle Costs
• Accelerated preparation of PFP demolition 3 years ahead of TPA milestone
• Accelerated TRU waste retrieval and shipments to WIPP (139 to date)
• Record-breaking year with 306 groundwater wells drilled
• Increased pumping capacity, treating more than 600 M gallons of groundwater
• Early preparation of U-Canyon for demolition in 2012 (2 years ahead of the milestone)

Transparency
“Tribal members to do Wahluke Slope work”
“Recovery Act Funds Stack Demolition at Hanford Site”
“Hanford’s U Canyon cleared for demolition”
“Last vault complex glove box set for removal”
“Hanford Recovery Act Workers Tear Down Facilities, Expand Groundwater Treatment in 2010”

Stack demo video goes viral
ARRA
A CHPRC Success Story

• Cleanup work aligned with DOE’s 2015 Vision for shrinking the site footprint
  – Hazard and risk reductions accelerated
  – Protection of the Columbia River
  – Shrinking the active cleanup footprint
  – Reducing lifecycle costs

• Development of skilled workforce for remaining cleanup
Contract Start
Contract Start

One and one-half years later,
Workforce Doubled,
Cleanup Area Increased 280%
Hanford Reach National Monument
Shrinking the EM Footprint: 290 square miles by 2011

- 143 square miles complete
- Removed 24 structures and more than 661 debris sites
- Unique teaming approach with HAMTC, Sealaska and Yakama Tribe
Reducing Footprint/Lifecycle Costs

On Schedule, Below Cost

• Reduced the footprint by more than 143 square miles
• Demolished 112 structures
• Remediated 89 waste sites
  • More than 793,000 tons of soil and debris taken to Environmental Restoration Disposal Facility (ERDF)
• Shipped 1,155 m³ Low-Level Waste (LLW) / Mixed Low-Level Waste (MLLW)
• Made 44,000 shipments of LLW/MLLW to ERDF
• Shipped 938 m³ of contact-handled transuranic (TRU) waste
• Made 140 TRUPAC II shipments since March 2010
• Retrieved 1,147 m³ of contact-handled TRU waste
• Repackaged 655 m³ of Waste Isolation Pilot Plant certifiable TRU
Reducing Footprint/Lifecycle Costs

On Schedule, Below Cost

- Removed 132 glove boxes from Plutonium Finishing Plant
  - Downgraded PFP security, saved $25M/year
  - Demolishing PFP 3 years ahead of the TPA milestone will save $50M/year
- Drilled 306 wells
- Treated more than 600 million gallons of groundwater in CY2010
- Decommissioned 188 wells
- Completed construction of 100DX Pump and Treat Facility
Innovations from ARRA funding

- New treatment resin at DX expected to reduce long-term operating costs by $20 million, essentially paying for itself
- Remedial Process Optimization (RPO) tool increases capacity and effectiveness of groundwater remediation
- Technologies increase worker safety and increase capabilities for present and future cleanup operations
  - Aerial survey technology
  - Mobile survey technology
  - Super dump trucks
- Initiated construction of 200 West Groundwater Treatment Facility
  - Increases capacity to 2,500 gpm
  - LEED certifiable facility
  - Largest, most complex in Environmental Management

200 West Groundwater Treatment Facility

U.S. DEPARTMENT OF ENERGY

CH2M HILL
Plateau Remediation Company
Quarterly All-Hands Meetings Held to Recognize Accomplishments, Set Safety Expectations and Address Transition Concerns After ARRA
Planning for FY2012

After ARRA

• Performing evaluation of funding, priorities and sequence of work

• Integrating staffing plan that identifies long-term staffing needs

• Communicating future opportunities

• Developed workforce transition planning

• Providing workforce transition assistance

• Working safely in a distracting environment